

## NEW LARVAL FOOD PLANTS AND NOTES FOR SOME AUSTRALIAN CERAMBYCIDAE (COLEOPTERA)

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### Abstract

Previously unrecorded larval food hosts are presented for 56 species of Cerambycidae in Queensland.

### Introduction

Duffy (1963) summarised the available information on the immature stages of the Australian Cerambycidae and Williams (1985) in making some additions, emphasised the need for more effort to establish the larval food plants in this large family.

Larval food plants resulting from breeding work and observations by one of us (MJH) have resulted in more data. By looking for wilting or dead foliage during the winter months (primarily August), we obtained much material still attached to the host plants. This facilitated identification. Branch pruning by cerambycids may be a more important tree-stressing agent than previously indicated by collections made during summer months in Queensland.

### Larval food plant records in Queensland

#### Subfamily Prioninae

##### *Agrianome spinicollis* (Macleay)

Mt. Glorious 27° 22'S, 152° 46'E emerged 29.xii.1979, from log of *Ficus watkinsiana* F. M. Bailey (Moraceae).

Long Pocket, Brisbane 27° 28'S 153 1'E emerged 7.i.1981, from decayed wood in a standing *Solanum mauritianum* Scop. (Solanaceae).

Brisbane 27° 28'S, 153° 1'E, emerged 13.xi.1979, from the trunk of a dying *Bauhinia* sp.? *forficata* Link (Caesalpinaceae).

##### *Cnemoplites ?cephalotes* (Pascoe)

Southern Cross mine, Ipswich 27° 37'S, 152° 27'E, emerged 4.xi.1977 to 10.xi.1977, from props of *Eucalyptus maculata* Hook. (Myrtaceae).

##### *Rhipidocerus australasiae* Westwood

Gambubal 28° 15'S, 152° 21'E, emergences 24.ix.1980 to 17.ii.1981, from dead trunk of *Pinus radiata* D. Don. (Pinaceae)

*Sceleocantha glabricollis* Newman

Imbil 26° 28'S, 152° 41'E, emerged 30.viii. 1981 to 4.i.1982, from decayed trunk of *Cunninghamia lanceolata* (Lamb.) Hook. (Pinaceae).

## Subfamily Cerambycinae

*Allotisis discreta* (Pascoe)

Brisbane 27° 28'S, 153° 1'E, emerged 31.iii.1977, from wharf piles of *Syncarpia glomulifera* (Sm.) Niedenzu (Myrtaceae).

*Amphirhoe decora* Newman

Long Pocket, Brisbane 27° 28'S, 153° 1'E, emerged 20.xi.1982 to 10.vi.1982, from material collected from a dead fallen tree of *Acacia aulacocarpa* A. Cunn. ex Benth. (Mimosaceae).

*Aphiorhynchus* sp.

Amamoor 26° 21'S, 152° 41'E, emerged 14.ii.1986, from a beetle-pruned branch of *Pentaceras australis* (F. Muell.) Hook. f. ex Benth. (Rutaceae).

*Aridaeus thoracicus* (Donovan)

Brisbane 27° 28'S, 153° 1'E, emerged 9.ii.1976, from the cambium layer of a living *Caesalpinia ferrea* Tulasne (Caesalpinaceae).

Woodridge, Brisbane 27° 28'S, 153° 1'E, emerged 6.i.1983, from decayed portion of a dead *Citrus limon* (L.) Burm. f. (Rutaceae).

Hawthorne, Brisbane 27° 28'S, 153° 1'E, emerged 11.xii.1980 from *Diospyros kaki* L. f. (Ebenaceae).

*Bethelium tillides* (Pascoe)

Western Creek 27° 50'S, 151° 6'E, emerged 7.ii.1975, from logwood of *Callitris columellaris* F. Muell. (Cupressaceae).

*Chlorophorus curtisi* (Laporte & Gory)

Beerburum 26° 58'S, 152° 58'E, emerged 30.xi.1979, from minor branches of a dead *Acacia concurrens* Pedley (Mimosaceae).

Passchendaele 28° 33'S, 151° 50'E, emerged 29.xi.1985, from a dead standing *Acacia* sp. (Mimosaceae).

*Coleocoptus senio* (Newman)

Dunmore 27° 39'S, 150° 55'E, emerged 3.xii.1981, from trunkwood of *Acacia leiocalyx* (Domin) Pedley (Mimosaceae).

*Coptocercus rubripes* (Boisduval)

Southern Cross mine, Ipswich 27° 37'S, 152° 47'E, emerged 17.i.1977, from prop timbers of *Eucalyptus maculata* Hook. (Myrtaceae).

Coorooy 26° 25'S, 152° 55'E, emerged 7.v.1981, from treated piles of *Syncarpia glomulifera* (Sm.) Niedenzu (Myrtaceae).

*Coptocercus rugicollis* Aurivillius

Cooroo 26° 25'S, 152° 55'E, emerged 20.v.1981 to 11.ix.1981, from treated piles of *Syncarpia glomulifera* (Sm.) Niedenzu (Myrtaceae).

*Coptocercus truncatus* Aurivillius

Cooroo 26° 25'S, 152° 55'E, emerged 7.v.1981, from treated piles of *Syncarpia glomulifera* (Sm.) Niedenzu (Myrtaceae).

The three records relating to *Syncarpia* immediately above were all from the same material.

*Coptocercus undulatus* (Hope)

Cleveland Sawmill, Brisbane 27° 28'S, 153° 1'E, emerged 23.v.1985, from sawn timber of *Eucalyptus andrewsii* Maiden (Myrtaceae).

*Diotimana undulata* (Pascoe)

Gympie 26° 11'S, 152° 40'E, emerged 12.iii.1980 from sawn timber of *Pinus elliottii* Engelm. (Pinaceae).

*Eroschema poweri* Pascoe

Brisbane 27° 28'S, 153° 1'E, bred from *Eucalyptus curtisii* Blakely et C. T. White (Myrtaceae) collected 23.ix.1975.

Brisbane 27° 28'S, 153° 1'E. Adult beetle removed from hole in branchlet of *Eucalyptus maculata* Hook. (Myrtaceae) collected 4.xi.1976.

Brisbane 27° 28'S, 153° 1'E, emerged 19.x.1981, from beetle-pruned branch of *Eucalyptus grandis* W. Hill ex Maiden (Myrtaceae).

*Neostenus saundersi* Pascoe

Dunmore 27° 39'S, 150° 55'E, emerged 27.xi.1980, from dead trunkwood of *Acacia neriifolia* Benth. (Mimosaceae).

*Oebarina ceresioides* Pascoe

Barakula 26° 26'S, 150° 30'E, 20 adults emerged 2.iv.1975 to 18.ii.1976, from logs of *Callitris columellaris* F. Muell. (Cupressaceae).

*Paradistichocera kirbyi* (Newman)

Brisbane 27° 28'S, 153° 1'E. Beetles were bred from beetle-pruned stems of *Lophostemon confertus* (R. Br.) Peter G. Wilson & J. T. Waterhouse (Myrtaceae) collected 8.iii.1976.

This insect pruned the stems off at heights of 6-7 metres above the ground. At such heights, the stems were 10cm. in diameter. 5 specimens were bred, 1 per stem.

Campbellville, via Coochin Ck. 26° 53'S, 152° 59'E, emerged 7.iv.1987.

The larva was feeding in the lower butt of *Casuarina littoralis* Salisb. (Casuarinaceae). Similar damage was very common in *Casuarina* along tidal creeks in the area. Larvae were readily detected by the copious amounts of white frass being extruded.

*Phacodes bellus* Blackburn

Mt. Glorious 27° 22'S, 152° 46'E, emerged 30.i.1975, from stem pieces of *Polyscias elegans* (C. Moore & F. Muell.) Harms. (Araliaceae).

*Phoracantha flavopicta* Pascoe

Dunmore 27° 39'S, 150° 55'E, emerged 28.ix.1973, from stems of *Dodonaea triangularis* Lindl. (Sapindaceae).

*Phoracantha punctata* (Donovan)

8 Mile Plains, Brisbane 27° 28'S, 153° 1'E, emergences 18.ix.1974 to 14.x.1974, from stemwood of *Acacia fimbriata* A. Cunn. ex G. Don (Mimosaceae).

Moogerah 28° 3'S, 152° 32'E, emergences 19.v.1981 to 2.ix.1981, from trunkwood of dead *Acacia irrorata* Sieb. ex Spreng (Mimosaceae).

Dunmore 27° 39'S, 150° 55'E, emergences 14.xii.1981 and 13.i.1982, from dead branches on live *Acacia leiocalyx* (Domin) Pedley (Mimosaceae)

*Phoracantha recurva* Newman

Dalby 27° 11'S, 151° 15'E, emergences 1.viii.1978 to 22.xii.1978, from logs of *Eucalyptus bloxomei* Maiden (Myrtaceae).

*Phoracantha semipunctata* (Fabricius)

Brisbane 27° 28'S, 153° 1'E, emergences from 19.xii.1974 to 21.iv.1975, from dead trunk material from *Eucalyptus siderophloia* Benth. (Myrtaceae).

Blackdown Tableland 23° 48'S, 149° 8'E, collected 17.viii.1976. Larvae and adults were found in branches of *Eucalyptus intermedia* R. T. Bak. (Myrtaceae).

Dunmore 27° 39'S, 150° 55'E, emerged 10.ii.1980, from trunk material of *Eucalyptus trachyphloia* F. Muell. (Myrtaceae).

*Piesarthrius marginellus* Hope

Maleny 26° 46'S, 152° 51'E, emergences 6.x.1986 to 10.x.1986, from branches of *Acacia melanoxydon* R. Br. ex Ait. (Mimosaceae).

*Porithodes plagiata* (Blackburn)

Kenilworth 26° 36'S, 152° 44'E, emergences 1.x.1985 to 29.x.1985, from branches of *Cryptocaria glaucescens* R. Br. (Lauraceae).

*Rhinophthalmus ?parvus* McKeown

Dunmore 27° 39'S, 150° 55'E emerged 24.xii.1980, from dead branch of *Acacia leiocalyx* (Domin) Pedley (Mimosaceae).

Hawkeswood (1985) records *R. modestus* Blackburn for this host.

*Skeletodes tetrops* Newman

Brisbane 27° 28'S, 153° 1'E, emerged 7.x.1985, from dying branches of *Castanospermum australe* A. Cunn. & C. Fraser ex Hook. (Fabaceae).

Amamoor 26° 21'S, 152° 41'E, emergences 1.ix.1985 to 3.ix.1985, from branches of *Pentacefas australis* (F. Muell.) Hook. f. ex Benth. (Rutaceae).

*Stenocentrus ostricilla* (Newman)

Brisbane, 27° 28'S, 153° 1'E. From dead trunk of *Delonix regia* (Bojer) Raf. (Caesalpinaceae) collected 18.xi.1974.

Brisbane 27° 28'S, 153° 1'E, emergences 2.xii.1980 to 15.xii.1980, from heartwood of a dead standing *Solanum mauritianum* Scop. (Solanaceae).

*Strongylurus thoracicus* (Pascoe)

Amamoor 26° 21'S, 152° 41'E, emerged 14.x.1985. The larva was feeding in a beetle-pruned branch of *Argyrodendron* sp. (Sterculiaceae).

Brisbane 27° 28'S, 153° 1'E emerged 7.xi.1985. The larva was feeding in a beetle-pruned branch of *Flindersia pubescens* F. M. Bail (Flindersiaceae).

Brisbane 27° 28'S, 153° 1'E, collected 22.vi.1985. The larvae were feeding in dying, attached branches of *Castanospermum australe* A. Cunn. & C. Fraser ex Hook. (Fabaceae). 5 specimens were collected, each pruning different branches on the same tree.

*Syllitus grammicus* (Newman)

Brisbane 27° 28'S, 153° 1'E, emerged 25.xi.1981, from fallen dead branch of *Acacia concurrens* Pedley (Mimosaceae).

*Syllitus rectus* (Newman)

Brisbane 27° 28'S, 153° 1'E, emerged 28.i.1977, from *Pittosporum undulatum* Vent. (Pittosporaceae).

*Tragocerus spencei* Hope

Mapleton 26° 38'S, 152° 52'E, emergences 26.viii.1985 to 25.x.1985, from the lower trunk and larger roots of living *Callicoma serratifolia* Andr. (Cunoniaceae).

*Tritocosmia rubea* Pascoe

Maryborough 25° 32'S, 152° 42'E, emerged 16.vii.1973, from *Acacia aulacocarpa* A. Cunn. ex Benth. (Mimosaceae).

*Tryphocaria* nr. *acanthocera* (Macleay)

Mapleton 26° 38'S, 152° 52'E, emerged 28.xii.1985, from trunk of stressed *Eucalyptus propinqua* Deane et Maiden (Myrtaceae).

The trees affected were all on hilltop sites. Larvae feed in the sapwood at heights of 5-10 metres. The damage differs from the distinctive Bull's eye borer (*T. acanthocera*), in that the attacked area below the bark swells, causing minor fissures on the surface from which resin exudes. No open Bull's eye results.

*Tryphocaria solida* Blackburn

Maryborough 25° 32'S, 152° 42'E, emergences 29.viii.1986 to 30.ix.1986, from cossid attacked trunk of *Eucalyptus grandis* W. Hill ex Maiden (Myrtaceae).

*Xylotrechus ?australis* (Laporte & Gory)

Amamoor 26° 21'S, 152° 41'E, emergences 1.ix.1985 to 29.xi.1985. In excess of 100 adults bred from a dead fallen branch of *Castanospermum australe* A. Cunn. & C. Fraser ex Hook. (Fabaceae).

## Subfamily Lamiinae

*Ancita crocogaster* (Boisduval)

Atherton 17° 16'S, 145° 29'E, emerged 3.i.1978 to 16.ii.1978, from trunk of *Acacia melanoxylon* R. Br. ex Ait. (Mimosaceae).

*Ancita marginicollis* (Boisduval)

Dunmore 27° 39'S, 150° 55'E, emerged 16.ii.1976, from ringbarked, minor branches of *Acacia floribunda* (Vent.) Wild. (Mimosaceae).

Beerburum 26° 58'S, 152° 58'E, emerged 4.x.1978, from *Acacia concurrens* Pedley (Mimosaceae).

Hughenden 20° 51'S, 144° 12'E, emerged 10.x.1979 from dead branches of *Acacia nilotica* (L.) Willd. ex Del. (Mimosaceae).

*Demonassa dichotoma* (Newman)

Palen Creek 28° 20'S, 152° 46'E, emerged 5.xii.1972, from trunk material of *Pinus elliottii* Engelm. (Pinaceae).

*Dihammus aestheticus* (Olliff)

Gadgarra 17° 18'S, 145° 44'E, collected 31.x.1976 from fallen trunk of *Flindersia brayleyana* F. Muell. (Flindersiaceae). Larval and pupal specimens were cut from the trunk.

*Dihammus fasciatus* (Montrouzier)

Sunday Creek 26° 43'S, 152° 32'E, emerged 25.i.1975 to 17.ii.1975, from trunk of *Ficus* sp. (Moraceae).

Mt. Glorious 27° 22'S, 152° 46'E, emerged 6.xii.1979 to 17.xii.1979, from fallen trunk of *Ficus* sp. ?*watkinsiana* F. M. Bailey (Moraceae).

*Dihammus vastator* (Newman)

Palen Creek 28° 20'S, 152° 46'E, emerged 22.iv.1974, from trunk of *Elaeocarpus* sp. (Elaeocarpaceae).

Beerwah 26° 51'S, 152° 57'E, emerged 17.x.1979, from trunkwood of *Pinus elliottii* Engelm. (Pinaceae).

Beerwah 26° 51'S, 152° 57'E, emerged 27.xi.1986, from billet of *Pinus taeda* L. (Pinaceae). The larvae were working in the cambium layer.

Brisbane 27° 28'S, 153° 1'E, from dead trunkwood of *Salix* sp. (Salicaceae).

*Disterna plumifera* (Pascoe)

Long Pocket, Brisbane 27° 28'S, 153° 1'E, emerged 3.ix.1979 to 17.iii.1980, from heartwood of a standing dead *Solanum mauritianum* Scop. (Solanaceae).

Kelvin Falls, Warwick 28° 13'S, 152° 2'E, emerged 19.iii.1974, from the trunk of *Pinus radiata* D. Don. (Pinaceae).

Long Pocket, Brisbane 27° 28'S, 153° 1'E, emerged 5.xii.1985 to 28.xii.1985, from branches of *Castanospermum australe* A. Cunn. & C. Fraser ex Hook. (Fabaceae) pruned off by *Strongylurus thoracicus* (Pascoe).

### *Mesolita lineolata* Pascoe

Gambubal 28° 15'S, 152° 21'E, emerged 11.i.1983 to 21.i.1983, from logs of *Pinus radiata* D. Don. (Pinaceae).

### *Penthea macularia* Pascoe

Iron Range 12° 46'S, 143° 16'E, collected 1.vii.1978 as an adult scraping the bark on branches and stem of *Acacia crassicaarpa*. A. Cunnl. ex Benth. (Mimosaceae).

### *Platyomopsis albocincta* (Guerin-Meneville)

Brisbane 27° 28'S, 153° 1'E, emerged 6.i.1975. The adults were observed ringbarking the smaller branches of *Alphitonia excelsa* (Fenzl.) Benth. (Rhamnaceae) from the dying portions of which larvae were collected and bred to maturity.

Eprapah Ck. 27° 35'S, 153° 15'E, emerged 19.ii.1975, from branch of *Glochidion ferdinandi* (J. Muell.) F. M. Bail. (Euphorbiaceae).

Brisbane 27° 28'S, 153° 1'E, emerged 5.ii.1982, from the minor branches of *Koelreuteria paniculata* Laxm. (Sapindaceae).

### *Platyomopsis ?morata* (Pascoe)

Kenilworth 26° 36'S, 152° 44'E, emerged 5.ii.1973, from a rainforest *Acacia* sp. (Mimosaceae).

### *Platyomopsis pulverulens* (Boisduval)

Brisbane 27° 28'S, 153° 1'E, emerged 11.i.1981, from heartwood of a standing dead *Solanum mauritianum* Scop. (Solanaceae).

### *Prosoplus iratus* (Pascoe)

Amamoor 26° 21'S, 152° 41'E, emergences 25.ix.1985 and 14.x.1985, from stem of *Notothixos cornifolius* Oliver (Viscaceae).

### *Rhytiphora dispar* (Blackburn)

Rockhampton 23° 32'S, 150° 32'E, collected 21.iv.1987. The adults damaged young *Eucalyptus camaldulensis* Dehnh. (Myrtaceae) by removing the bark layers over extensive areas of the upper branches. Multiple circular oviposition sites (averaging 20mm. diameter) of roughened bark were prepared lower down the trunk.

Bundaberg 24° 52'S, 152° 21'E, collected 29.i.1986. Adults were damaging the stems of young plants of *Eucalyptus camaldulensis* Dehnh. (Myrtaceae) by removing the bark layers over extensive areas.

### *Ropica exocentroides* Pascoe

Beerwah 26° 51'S, 152° 57'E, emergences 28.xii.1979 to 9.i.1980, from the flower stalk of *Xanthorrhoea* sp. (Xanthorrhoeaceae).

Amamoor 26° 21'S, 152° 41'E, emerged 15.x.1985, from a dead fallen branch of *Castanospermum australe* A. Cunn & C. Fraser ex Hook. (Fabaceae).

*Temnosternus planiusculus* White

Mt. Nebo 27° 24'S, 152° 47'E, emerged 5.ix.1975, from fallen dead branches of *Denhamia pittosporoides* F. Muell. (Celastraceae).

Amamoor 26° 21'S, 152° 41'E, collected 23.viii. 1985, emerged 4.ix.1985 from a beetle-pruned branch of *Pentaceras australis* (F. Muell.) Hook. f. ex Benth. (Rutaceae).

*Temnosternus quadrituberculatus* McKeown

Sunday Creek 26° 43'S, 152° 32'E emergences 15.iv.1975 to 15.v.1975 from dead stem of *Ficus* sp. (Moraceae).

*Velora sordida* (Pascoe)

Amamoor 26° 21'S, 152° 41'E, emerged 28.xii.1985, from a dead fallen branch of *Castanospermum australe* A. Cunn & C. Fraser ex Hook. (Fabaceae).

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